

NOTES ON THE FLORA OF COÖS COUNTY,
NEW HAMPSHIRE, III.

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Two collecting seasons have passed since the data covered in Note II (Rhodora 69: 29-34 (1967) were accumulated and the County continues to produce interesting material. Professor Pease cited 1689 taxa from the County in his Flora of Northern New Hampshire. There are now additional distributional data on over 750 of these taxa and more than fifty new taxa have been added. Most of the additions are adventive weeds, garden escapes or forms and hybrids. While one expects to find introduced plants on dumps, some of them have turned up in rather remote places. During World War II the fire tower on the summit of Signal Mountain in Millsfield was manned by a woman and she established a flower garden at the base of the tower; some of her plants still persist. When the Appalachian Mountain Club built their new Mizpah Hut on Mount Clinton they made the highest cultivated lawn in New Hampshire around the hut and a number of plants came in with the grass seed. But what is *Lysimachia punctata* doing in a gravel bank on Crystal Mountain at the end of a logging road up Four Mile Brook in Dix Grant nearly fifteen miles back in the woods?

In Note II I discussed the dilemma of the boundaries of Cutts Grant and hazarded the guess that the collections cited by Pease for this township and actually collected there could be counted on the fingers of one hand. It would only take three fingers; I have examined all the cited specimens in the herbarium of the New England Botanical Club, finding 101 of the 105 Pease citations. *Chimaphila umbellata*, var. *cisatlantica*, *Solidago squarrosa* and *S. Randii* were collected in the Grant; the localities given on the labels of all the other cited specimens indicate that they were collected in Sargent Purchase. During the summers of 1966 and 1967 I have made three trips into Cutts Grant up the Dry River Trail

and the Grant now has an authentic flora of some 140 taxa, but none of them are strictly mountain species.

During the past two summers I have also tried to improve the representation from the unorganized townships in the County. The known flora of Dix Grant has increased from five to 205 taxa and the Atkinson and Gilmanton Academy Grant from 17 to well over 200. Odell and Kilkenny are much better represented than formerly and Chandler Purchase has risen from zero to about 80. There are now not more than five townships represented by less than 100 taxa; all are in the southern half of the County. After another collecting season I hope there will be none. The year of collection is given in parentheses following the specimen citation.

Equisetum arvense L., var. *boreale* (Bong.) Ledeb. — Errol, *Harris* 30844 (67); Cambridge, *Harris* 30808 (67); Dummer, *Pease* 37553 (54); Kilkenny, *Harris* 31152 (67). Unreported in the Flora but the Dummer specimen in the herbarium of the New England Botanical Club had been so identified by Pease. Probably other County specimens identified as the species are this variety.

Osmunda cinnamomea L., forma *frondosa* (T. & G.) Britt. — Kilkenny, moist ground in Willard Notch, *Harris and W. Tiffney, Jr.* 30935 (67); Bean Grant, between Mizpah Hut and Mt. Jackson, *Harris* 29721 (66). Pease cites one collection from Randolph.

Pinus sylvestris L. — Milan, east side of the river, *Harris* 31380 (67). Spontaneous seedlings in a roadside plantation. The only other County collection was made by Deane in Shelburne.

Juniperus communis L., var. *depressa* Pursh. — Stark, roadbed of Grand Trunk Railway, Crystal, *Harris* 30487 (66); Berlin, roadside on east side of river, *Harris* 31387 (67). This seems to be a scarce plant in the County. Pease cites it from eight townships but the only other station I have seen is the cited specimen from Dummer which I found in an abandoned pasture on Dummer Hill in 1948; this colony was still doing well in 1967.

Sparganium androcladum (Engelm.) Morong — Milan, Long Pond, West Milan, *Harris* 30580 (66). Previously reported only from the Second (Dartmouth) College Grant.

Elodea Nuttallii (Planch.) St. John — Cambridge, Bog Brook, *Harris* 29864 (66). Now known from six townships; this species is probably more common than collections indicate.

Lolium perenne L. — Errol, roadside at Seven Islands, *Harris* 30997 (67); Bean Grant, lawn of Mizpah Hut, 3800 feet, *Harris* 29725 (66). Previously reported only from Randolph.

Lolium multiflorum Lam., var. *diminutum* Mutel — Pittsburg, town dump, *Harris* 31512 (67). Second record for the County; the first, from Millsfield, was reported in Note II.

Avena fatua L. — Pittsburg, about old stable near Moose Pond, *Harris and Scott* 30416 (66). New to the County. A few plants mixed in an abundant stand of *A. sativa* which was new to Pittsburg; *Harris and Scott* 31417 (66).

Sporobolus neglectus Nash — Dummer, Grand Trunk Railway tracks, *Harris* 30729 (66); Milan, Grand Trunk tracks near Copperville, *Harris* 30614 (66). The only previous record is from the adjoining town of Stark and also on the railway.

Calamagrostis Pickeringii Gray — Chandler Purchase, summit of Mount Pleasant, *Harris* 31766 (67). Previous collections are all from Sargent Purchase.

Alopecurus pratensis L. — Atkinson and Gilmanton Academy Grant, clearing at Hell Gate, *Harris* 30923 (67). The only other collections are from Lancaster and Shelburne.

Phalaris canariensis L. — Pittsburg, town dump, *Harris* 31513 (67); Errol, town dump, *Harris* 30132 (66); Milan, dump, West Milan, *Harris* 31282 (67). Two previous collections, also from waste ground.

Panicum dichotomiflorum Michx., var. *geniculatum* (Wood) Fern. — Northumberland, waste ground, North Road, Groveton, *Harris* 30126 (66). The third record for the County.

Panicum miliaceum L. — Colebrook, town dump, *Harris* 30244 (66); Errol, town dump, *Harris* 30131 (66); Stratford, foot of Sugarloaf Trail, *Harris* 29738 (66); Milan, dump West Milan, *Harris* 29662 (66); Gorham, town dump Cascade, *Harris* 31463 (67). Three previous reports. The lookout on the Sugarloaf fire tower feeds birds.

Cyperus strigosus L. — Gorham, town dump Cascade, *Harris* 31468 (67). Pease cites the species from two towns on the Connecticut River where it may well be native but it is certainly an introduction on the Gorham dump.

Arisaema Stewardsonii Britt. — Atkinson and Gilmanton Academy Grant, low ground at Hell Gate, *Harris* 30880 (67). Reported from Colebrook as new to the County in Note II.

Lemna minor L. — Colebrook, roadside pool, *Harris* 30239 (66); Stark, farm pond, *Harris* 28796 (66). This brings the County representation to five townships; *Lemna* seems to be a difficult genus to find in northern New Hampshire.

Allium tricoccum Ait. — Milan, rich moist hillside, West Milan, *Harris* 28681 (66). Known from three other towns.

Cypripedium acaule Ait., forma *acaule* — Pittsburg, Indian Stream, *Chapman, Nugent, Nugent and Tiffney* (64); Stratford, road to Trio Ponds, *Harris* 28798 (66). See Note II for a discussion of the distribution of the pink-flowered form.

Epipactis Helleborine (L.) Crantz — Dixville, damp roadside near the Balsams, *Harris* 30223 (66). Previously known only from Mt. Prospect in Lancaster where it was first collected in 1943.

Salix discolor × *humilis* — Pittsburg, Indian Stream, *Chapman, Nugent, Nugent and Tiffney* (64). First report for the County.

Salix gracilis, var. *textoris* × *S. rigida* — Pittsburg, Indian Stream, *Chapman, Nugent, Nugent and Tiffney* (64). First report for the County.

Populus alba L. — Stark, spontaneous seedling in dooryard, *Harris* 31376 (67); Milan, roadside on east side of river, *Harris* 31381 (67). Previously reported from two townships.

Ulmus rubra Muhl. — Dummer, road up Dummer Hill, *Harris* 29098 (66). I had been told at least ten years ago that in the 1800's *U. rubra* had been grown on Dummer Hill and the bark sold in Portland, Maine. At the time I had searched for remaining trees without success. While walking out from camp one morning in 1966 I noticed some samaras on the road which looked different from those of *U. americana*. They had fallen from two trees of *U. rubra* which overhang the road and which are at least eighteen inches in diameter at breast height. Both trees show evidence of Dutch Elm Disease but they again produced fruit in 1967. I can find no evidence of seedling trees in the vicinity.

Ulmus americana L., forma *pendula* (Ait.) Fern. — Cambridge, roadside, *Harris* 30815 (67). The second township for the County.

Ulmus americana, forma *laevior* Fern. — Pittsburg, Hall Stream, *Chapman, Nugent, Nugent and Tiffney* (64). The second report for the County.

Ulmus americana, forma *intercedens* Fern. — Atkinson and Gilmanton Academy Grant, vicinity of Hell Gate, *Harris* 30878 (67). New to the County. All four forms are now known from the County; of these forma *alba* (Ait.) Fern. is by far the most common.

Polygonum aviculare L., var. *vegetum* Ledeb. — Dummer, waste ground Paris, *Harris* 29905 (66); Milan, Emery farm West Milan, *Harris* 27394 (65). Previously known from the railroad in Gorham.

Polygonum Persicaria L., forma *albiflorum* Millsp. — Atkinson and Gilmanton Academy Grant, roadside, *Harris* 30002 (66). First report for the County.

Polygonum Persicaria, var. *runderale* (Salisb.) Meisn. — Gorham, town dump Cascade, *Harris* 31470 (67). New to the County.

Chenopodium urbicum L. — Pittsburg, roadside Indian Stream, *Harris and Scott* 30418 (66). The third record for the County.

Lychnis Flos-cuculi L. — Pittsburg, logging road east of Parmacheene Bog, *Harris and Scott* 29150 (66). First reported for the County in Note II. In June 1966 a lady in Berlin told me she had found Ragged Robin "on the right side of the road somewhere between Dixville Notch and Pittsburg." I promptly searched that stretch of

road, a matter of some thirty miles, without success. Knowing that she had found it on her way to go birding with Fred Scott, I looked him up to see if she had shown him the plant and told him where she found it. He had never heard of Ragged Robin and I showed him the picture in his old Reed Flower Guide. In less than a week he sent me a fragment of the species which he had discovered in the locality cited above. Thus there are now two definite stations for the species in the County plus a third yet to be relocated.

Ranunculus trichophyllus Chaix, var. *trichophyllus* — Cambridge, Bog Brook, *Harris* 29845 (66). The sixth township for the County.

Ranunculus repens L. — Pittsburg, logging road east of Parmacheene Bog, *Harris and Scott* 29125 (66); Randolph, roadside Keenan Brook, *Harris and W. Tiffney, Jr.* 30925 (67). This introduced species is now known from four townships. With the exception of the Pease collection made on the Ravine House lawn in Randolph, all collections have been made on logging roads well off the beaten path.

Aconitum Napellus L. — Dummer, cellar hole Dummer Hill, *Harris* 27580 (65). The old farm where this still persists was abandoned at least fifty years ago.

Sanguinaria canadensis L. — Atkinson and Gilmanton Academy Grant, low ground at Hell Gate, *Harris* 30874 (67). The other four townships from which this species is known are all on the Connecticut River; the Academy Grant is in the Androscoggin watershed.

Fumaria officinalis L. — Milan, Emery farm West Milan, *Harris* 29541 (66). The second report for the County. This species has appeared as a weed in a vegetable garden for at least twenty years; I did not find it again in 1967.

Raphanus Raphanistrum L., forma *albus* (Scheubler & Martens) Hayek — Berlin, site of old dump Jerico, *Harris* 27870 (65); Gorham, town dump Cascade, *Harris* 31466 (67). One other report from the County.

Sedum spurium Bieb. — Milan, dump West Milan, *Harris* 29678 (66). New to the County.

Saxifraga cernua L.

Saxifraga Aizoön Jacq. — Both of these Saxifrages are new to New Hampshire. They were found on Mount Washington in 1939 by Dr. John A. Churchill; the station was relocated in 1967. For full details see *Rhodora* 69: 483-486 (1967). These are the most exciting finds made in the County for several decades.

Potentilla canadensis L. — Pittsburg, Indian Stream, *Chapman, Nugent, Nugent and Tiffney* (64). The first collection for the County.

Lupinus polyphyllus Lindl. — Millsfield, summit of Signal Mountain, *Harris* 31356 (67). Persistent in old garden at base of fire tower. Third collection for the County.

Trifolium repens L., forma *phyllanthum* (Sm.) Fieri & Beguinet — Milan, roadside West Milan, *Harris* 29171 (66). New to the County.

Lotus corniculatus L. — Stark, roadside, *Harris* 30971 (67); Northumberland, roadside Groveton, *Harris* 30972 (67). I reported this as new to the County in 1965, *Rhodora* 67: 196; it is now known from six townships.

Rhus typhina L. — Errol, roadside, *Harris* 30837 (67); Milan, field near Cedar Pond, *Harris* 31166 (67). The Errol station extends the known range of the species in the Androscoggin valley north by some thirty miles.

Vitis vinifera L. — Milan, dump West Milan, *Harris* 31271 (67). New to the County. I was interested to find that seedlings of a table grape which I assume to be this species occur on dumps in northern New Hampshire just as they do on dumps in Essex County, Massachusetts. They apparently are not hardy enough to withstand New England winters.

Malva moschata L., forma *moschata* — Pittsburg, town dump, *Harris* 28979 (66); Second College Grant, site of old farm, *Harris* 31338 (67). Both collections seem to be the typical form which is unreported for the County. There are numerous collections of forma *laciniata* and some of forma *heterophylla*, however.

Althaea rosea Cav. — Milan, dump West Milan, *Harris* 29681 (66). This is another fairly regular inhabitant of dumps. Not reported previously from the County.

Abutilon Theophrasti Medic. — Pittsburg, site of Depot Camp, Indian Stream, *Harris and Scott* 30422 (66). Another first collection for the County.

Viola arvensis Murr. — Stark, dooryard Crystal, *Harris* 31139 (67). The third township for the County.

Lythrum Salicaria L. — Dummer, waste ground Paris, *Harris* 29894 (66); Whitefield, roadside ditch, *Harris* 29173 (66). As yet this is not a common weed in the County there being only two previous collections. It would not be surprising if Pittsburg should be the next town where it is reported since I have collected it in Quebec not more than a hundred yards over the border above Third Lake.

Epilobium coloratum Biehler — Second College Grant, along Swift Diamond, *Harris* 30050 (66); Stratford, roadside along Nash Stream, *Harris* 30099 (66). The only other collection was made in Whitefield in 1897.

Panax trifolium L. — Pittsburg, Hall Stream, *Chapman, Nugent, Nugent and Tiffney* (64). There are only three other towns represented. Possibly this species is more abundant than collections indicate because the flowering period is over in early June before most botanists start collecting in the County.

Moneses uniflora (L.) Gray — Dixville, shore of Mud Pond, *Harris* 30205 (66); Cambridge, shore of Bog Brook, *Harris* 29823 (66); Cutts Grant, between Shelter #2 and Mizpah Hut, *C. C. Harris* 29720 (66). Pease cites three towns for this species; this brings the total to six.

Gaultheria procumbens L., forma *suborbiculata* Fern. — Stratford, summit North Percy Peak, *C. C. Harris* 30483 (66). The second collection for the County.

Lysimachia punctata L. — Dix Grant, gravel bank at end of road up Four Mile Brook, *Harris* 30445 (66), 31061 (67). New to the County. An odd place to find a garden escape since there is no evidence that there ever had been a garden within miles of the spot.

Convolvulus arvensis L. — Milan, tracks of Grand Trunk Railway near Copperville, *Harris* 30604 (66). First report for the County.

Myosotis sylvatica Hoffm. — Pittsburgh, Hall Stream, *Chapman, Nugent, Nugent and Tiffney* (64). The second report for the County.

Dracocephalum parviflorum Nutt. — Bean Grant, edge of lawn at Mizpah Hut, *Harris* 29730 (66). New to the County. The station was still extant in 1967.

Lamium maculatum L., forma *lacteum* (Wallr.) G. Beck — Millsfield, summit of Signal Mountain, *Harris* 31355 (67). New to the County.

Monarda media Willd. — Dummer, beside old cellar hole Dummer Hill, *Harris* 29693 (66). New to the County. This long abandoned farm once had an herb garden. Professor Pease collected *Asarum canadense* here in 1930 and it is now abundant for a hundred yards along the road; I am sure the *Asarum* came from the herb garden rather than being native to Dummer Hill.

Solanum sarachoides Sendtner — Gorham, town dump Cascade, *Harris* 31465 (67). New to the County. This weed is still not common in New England but seems to be spreading in the area.

Euphrasia canadensis Townsend — Dix Grant, road up Four Mile Brook, *Harris* 30461 (66); Wentworth Location, road to Dixie Dam, *Harris* 30441 (66); Dixville, roadside near the Balsams, *Harris* 30211 (66); Colebrook, roadside, *Harris* 30240 (66); Millsfield, logging road, *Harris* 31366 (67); Dummer, road to Dummer Pond, *Harris* 30352 (66). Pease cites five towns and describes the species as local. In the northern half of the County it appears to be fairly common and has distinctly weedy characteristics. Mr. Leo Charette has recently pointed out that the two collections of Forbes cited from Green Grant are *E. americana* rather than *E. canadensis* and I am sure that other collections cited by Pease and by me could well be referred to *E. americana* or some other related species. Specific lines in this confusing genus are not clearly drawn and until the genus has had a thorough revision it seems to me that it is best to treat collections as a single highly variable species.

Rhinanthus Crista-galli L. — Atkinson and Gilmanton Academy Grant, roadside, *Harris* 30248 (66); Clarksville, road to Clarksville Pond, *Harris* 29014 (66); Second College Grant, road along the Swift Diamond, *Harris* 30081 (66); Wentworth Location, field, *Harris* 28915 (66); Errol, roadside, *Harris* 28953 (66). Pease knew this

species only from Pittsburg where he first found it in 1938. In Note II I reported it from the northern edge of Randolph. Apparently in the northern half of the County it is now a rapidly spreading weed.

Galium erectum Huds. — New to the County. The Pease collection #30134 (43) cited from Whitefield under *G. Mollugo* is a perfectly good specimen of this rather dubious species.

Cephalanthus occidentalis L. — Milan, Long Pond, *Harris* 30549 (66), North Branch, *Harris* 30588 (66). It seems strange that Buttonbush is a rare plant in Coös County. Pease collected it in Northumberland in 1909 and Deane found a single bush in a hen yard in Shelburne and traced its history over a number of years in Rhodora. In August 1966 a lady in West Milan showed me a flowering head which was in a bouquet her grandson had brought her from a pickerel fishing trip. His mother told me that he had fished in Long Pond, so I put my boat in there and found a few sterile bushes. A few days later the boy told me he had fished the North Branch and again by boat I found abundant flowering material there.

While searching in Long Pond I also found *Xyris montana* which is cited in Pease only from Pike Pond in Stark and Goose Pond in Milan. Goose Pond appears as a locality in Milan on a number of Pease's collections. This poses a problem. I have been unable to find Goose Pond, Milan, on any map and I have asked numerous inhabitants of Milan who have lived there all their lives and none have ever heard of it. Since Pease also cites specimens from Long Pond, Goose Pond is not apparently a synonym for that.

Eupatorium rugosum Houtt., forma *villicaule* Fern. — Pinkham Grant, Glen Road, *Floyd* (03); cited in Pease as *E. rugosum*. New to the County.

Aster puniceus L., forma *albiflorus* (Farw.) Shinnars — Dixville, logging road near Mud Pond, *Harris* 30181 (66); Odell, between Little Bog Pond and Trio Ponds, *Harris* 30515 (66). This doubles the representation of this taxon in the County.

Aster junciformis Rydb. — Dalton, *Pease* 39316 (58). The second collection from the County.

Aster nemoralis Ait., forma *albiflorus* Fern. — Milan, Long Pond, *Harris* 30564 (66). Long Pond is on the outlet of South Pond in Stark where Pease made the only other collection of this taxon in the County.

Gnaphalium sylvaticum L. — Dix Grant, along the Swift Diamond, *Harris* 29559 (66); Dixville, logging road near Mud Pond, *Harris* 30142 (66); Erving Location, logging road, *Harris* 28181 (65); Columbia, roadside Cilley Hill, *Harris* 28309 (65); Odell, Trio Pond road, *Harris* 30508 (66); Dummer, road to Dummer Ponds, *Harris* 30354 (66). First collected in Success in 1908 and not found again until 1942. The species is frequent now in the northern half of the County.

Ambrosia trifida L. — Berlin, waste ground Mechanic Street, *Harris* 27959 (65). There are only two other collections from the County. I first saw the plant in Berlin in the early 1950's and told Pease but at the time it was not convenient to collect a specimen. On visiting the same site in 1965 I was surprised to discover that the species had persisted more than ten years and pleased to be able to validate the report in Pease with a specimen.

Helianthus laetiflorus Pers. — Dummer, Grand Trunk Railway, *Harris* 30733 (66). The third town for the County.

Helianthus tuberosus L. — Errol, town dump, *Harris* 31505 (67). Known from three other towns.

Helenium nudiflorum Nutt. — Milan, schoolyard West Milan, *Harris* 30438 (66). The fourth town for the County.

Calendula officinalis L. — Milan, dump West Milan, *Harris* 29685 (66). The second collection for the County.

Centaurea montana L. — Dummer, lawn at our camp on Dummer Hill, *Harris* 27407 (65). Two other collections from the County. This species was planted in our flower garden nearly twenty years ago. There are now dozens of clumps of it on the lawn and the surrounding field.

Crepis capillaris (L.) Wallr. — Dixville, logging road near Mud Pond, *Harris* 30185 (66). The third town for the County. I collected it again in Dixville in 1967 on a logging road several miles from the cited location.

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